

SECTION 390 BASE PATCHING

390.1 Description

- (1) This section describes patching areas of existing concrete pavement with either concrete or asphaltic mixtures for overlaying with new pavement.

390.2 Materials

- (1) The contractor may use either concrete or asphaltic mixture.
- (2) Furnish concrete conforming to the requirements specified for air-entrained high early strength concrete, grade B, B-FA, B-S, B-IS, or B-IP, under [section 501](#), except that under the Base Patching Concrete SHES bid item, conform to [416.2.5.1](#). Provide QMP for class II ancillary concrete as specified in [section 716](#).
- (3) Furnish asphaltic mixture as specified for asphaltic base under [315.2](#).
- (4) Furnish dowel bars and tie bars as the plans show and conforming to [505.2.6](#).

390.3 Construction

390.3.1 General

- (1) Unless the contract provides otherwise, keep the road open to traffic during construction. If possible, restrict operations to one lane at a time. Perform work to cause the least possible inconvenience to traffic.
- (2) Remove areas of existing concrete pavement, including existing patching or surfacing materials, at locations the plans show or the engineer directs in the field. Saw the connecting edges as true and perpendicular as possible as specified for sawing pavement in [section 690](#). Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in [204.3.1.3](#).
- (3) Prepare the foundation as specified in [section 211](#) using engineer-approved hand methods. Place the patch to the thickness of the contiguous pavement, including the existing asphaltic pavement or surfacing.

390.3.2 Concrete Patching

- (1) Deposit concrete to require as little rehandling as possible, place and consolidate by hand, and strike off and finish flush with adjoining surfaces. The engineer will not require forms unless necessary to provide the required edge, grade, or alignment.
- (2) Cure exposed patches as specified for concrete pavement in [415.3.12](#) except the contractor may use PAM or linseed oil based curing compound conforming to [415.2.4](#) or may use wax based curing compound conforming to [501.2.9](#). Protect as specified for concrete pavement in [415.3.14](#). Open to traffic as specified for concrete base in [320.3](#).

390.3.3 Asphaltic Patching

- (1) Construct as specified for asphaltic base under [section 315](#) except as modified here in 390.3.3.
- (2) Dump material outside the patch area, fill the patch in successive layers with shovels, and shape to the required grade and contour with rakes and lutes. Do not rake dumped material into the patch. The engineer will not require forms unless necessary to provide the required edge, grade, or alignment.
- (3) Compact each layer with engineer-approved compaction equipment. Unless the engineer directs otherwise, compact each layer to a thickness of 6 inches or less. Roll the top layer until flush with the adjacent surface.
- (4) Do not open patches to traffic until they are hard enough to prevent rutting or displacement.

390.3.4 Special High Early Strength Concrete Patching

- (1) Construct as specified for special high early strength repairs under [416.3.8](#), except begin removal within 14 calendar days after cutting the existing pavement. Cure exposed patches as specified for concrete pavement in [415.3.12](#) except the contractor may use PAM or linseed oil based curing compound conforming to [415.2.4](#) or may use wax based curing compound conforming to [501.2.9](#). Do not apply excess curing compound that could cause slippery pavement under traffic.

390.4 Measurement

- (1) The department will measure Base Patching Asphaltic by the ton or square yard acceptably completed.
- (2) The department will measure Base Patching, Base Patching Concrete, and Base Patching Concrete SHES by the square yard acceptably completed.

390.5 Payment

- (1) The department will pay for measured quantities at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
390.0103	Base Patching	SY
390.0201	Base Patching Asphaltic	TON
390.0203	Base Patching Asphaltic	SY
390.0303	Base Patching Concrete	SY
390.0403	Base Patching Concrete SHES	SY

- (2) Payment for bid items under this section is full compensation for removing old pavement and disposing of removed materials; for preparing the foundation; for providing, curing, and protecting concrete; and for providing and compacting asphaltic mixture, including the asphaltic material. Payment includes providing tie bars and dowel bars in unhardened concrete and steel within the patch. For tie bars and dowel bars provided in concrete not placed under the contract, the department will pay separately under the Drilled Tie Bars and Drilled Dowel Bars bid items as specified in [416.5](#).
- (3) Base Patching includes providing either concrete or asphalt at the contractor's option. Base Patching Asphaltic includes providing asphaltic material. Base Patching Concrete and Base Patching Concrete SHES include providing concrete.
- (4) Payment for Base Patching Concrete SHES is also full compensation for making and testing concrete cylinders and providing test data to the engineer.
- (5) The department will pay for sawing the existing concrete pavement for removal under the Sawing Concrete bid item as specified in [690.5](#).
- (6) If the engineer orders the contractor to excavate yielding or unstable subgrade materials and backfill with suitable materials, the department will pay for that work either under pertinent contract bid items, or as extra work.